

C. Costara, **On the spectral Nevanlinna Pick problem**, *Studia Math.*, 170 (2005), 23–55.

Abstract

In this paper we give several characterizations of the symmetrized n -disc G_n which generalize to the case $n \geq 2$ the characterizations of the symmetrized bidisc that were used in order to solve the two-point spectral Nevanlinna–Pick problem in $\mathcal{M}_2(\mathbb{C})$. Using these new functions, that give necessary and sufficient conditions for an element to belong to G_n , we obtain necessary conditions of interpolation for the general spectral Nevanlinna–Pick problem. They also allow us to give a method to construct analytic functions from the open unit disc of \mathbb{C} into G_n and to obtain some of the complex geodesics on G_n .